18.

Ravi and Kumar are working on an assignment. Ravi takes 6 hours to type 32 pages on a computer, while Kumar takes 5 hours to type 40 pages. How much time will they take, working together on two different computers to type an assignment of 110 pages?

7 hours 30 minutes

8 hours

8 hours 15 minutes

8 hours 25 minutes

**Answer:** Option

**Explanation:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Number of pages typed by Ravi in 1 hour = | 32 | = | 16 | . |
| 6 | 3 |

|  |  |  |
| --- | --- | --- |
| Number of pages typed by Kumar in 1 hour = | 40 | = 8. |
| 5 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Number of pages typed by both in 1 hour = | ( | 16 | + 8 | ) | = | 40 | . |
| 3 | 3 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Therefore Time taken by both to type 110 pages = | ( | 110 x | 3 | ) | hours |
| 40 |

|  |  |  |
| --- | --- | --- |
| = 8 | 1 | hours (or) 8 hours 15 minutes. |
| 4 |

Sakshi can do a piece of work in 20 days. Tanya is 25% more efficient than Sakshi. The number of days taken by Tanya to do the same piece of work is:

15

16

18

25

**Answer:** Option

**Explanation:**

Ratio of times taken by Sakshi and Tanya = 125 : 100 = 5 : 4.

Suppose Tanya takes *x* days to do the work.

|  |  |  |  |
| --- | --- | --- | --- |
| 5 : 4 **::** 20 : *x*    https://www.indiabix.com/_files/images/aptitude/1-sym-imp.gif *x* = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 4 x 20 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif |
| 5 |

https://www.indiabix.com/_files/images/aptitude/1-sym-imp.gif *x* = 16 days.

­

17.

A is 30% more efficient than B. How much time will they, working together, take to complete a job which A alone could have done in 23 days?

11 days

13 days

|  |  |  |
| --- | --- | --- |
| 20 | 3 | days |
| 17 |

None of these

**Answer:** Option

**Explanation:**

Ratio of times taken by A and B = 100 : 130 = 10 : 13.

Suppose B takes *x* days to do the work.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Then, 10 : 13 :: 23 : *x*     =>     *x* = | ( | 23 x 13 | ) | =>     *x* = | 299 | . |
| 10 | 10 |

|  |  |  |
| --- | --- | --- |
| A's 1 day's work = | 1 | ; |
| 23 |

|  |  |  |
| --- | --- | --- |
| B's 1 day's work = | 10 | . |
| 299 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (A + B)'s 1 day's work = | ( | 1 | + | 10 | ) | = | 23 | = | 1 | . |
| 23 | 299 | 299 | 13 |

Therefore, A and B together can complete the work in 13 days

16.

X and Y can do a piece of work in 20 days and 12 days respectively. X started the work alone and then after 4 days Y joined him till the completion of the work. How long did the work last?

6 days

10 days

15 days

20 days

**Answer:** Option

**Explanation:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Work done by X in 4 days = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | x 4 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | . |
| 20 | 5 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Remaining work = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 - | 1 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 4 | . |
| 5 | 5 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (X + Y)'s 1 day's work = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 8 | = | 2 | . |
| 20 | 12 | 60 | 15 |

|  |  |  |
| --- | --- | --- |
| Now, | 2 | work is done by X and Y in 1 day. |
| 15 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| So, | 4 | work will be done by X and Y in | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 15 | x | 4 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = 6 days. |
| 5 | 2 | 5 |

Hence, total time taken = (6 + 4) days = 10 days.

4 men and 6 women can complete a work in 8 days, while 3 men and 7 women can complete it in 10 days. In how many days will 10 women complete it?

35

40

45

50

**Answer:** Option

**Explanation:**

Let 1 man's 1 day's work = *x* and 1 woman's 1 day's work = *y*.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Then, 4*x* + 6*y* = | 1 | and 3*x* + 7*y* = | 1 | . |
| 8 | 10 |

|  |  |  |  |
| --- | --- | --- | --- |
| Solving the two equations, we get: *x* = | 11 | , *y* = | 1 |
| 400 | 400 |

|  |  |  |
| --- | --- | --- |
| https://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif 1 woman's 1 day's work = | 1 | . |
| 400 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| https://www.indiabix.com/_files/images/aptitude/1-sym-imp.gif 10 women's 1 day's work = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | x 10 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | . |
| 400 | 40 |

Hence, 10 women will complete the work in 40 days.

14.

P can complete a work in 12 days working 8 hours a day. Q can complete the same work in 8 days working 10 hours a day. If both P and Q work together, working 8 hours a day, in how many days can they complete the work?

|  |  |
| --- | --- |
| 5 | 5 |
| 11 |
| 5 | 6 |
| 11 |

|  |  |
| --- | --- |
| 6 | 5 |
| 11 |
| 6 | 6 |
| 11 |

**Answer:** Option

**Explanation:**

P can complete the work in (12 x 8) hrs. = 96 hrs.

Q can complete the work in (8 x 10) hrs. = 80 hrs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| https://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif P's1 hour's work = | 1 | and Q's 1 hour's work = | 1 | . |
| 96 | 80 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (P + Q)'s 1 hour's work = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 11 | . |
| 96 | 80 | 480 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| So, both P and Q will finish the work in | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 480 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | hrs. |
| 11 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| https://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif Number of days of 8 hours each = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 480 | x | 1 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 60 | days = 5 | 5 | days. |
|  |  |  |  |

15.

10 women can complete a work in 7 days and 10 children take 14 days to complete the work. How many days will 5 women and 10 children take to complete the work?

3

5

7

Cannot be determined

None of these

**Answer:** Option

**Explanation:**

|  |  |
| --- | --- |
| 1 woman's 1 day's work = | 1 |
| 70 |

|  |  |
| --- | --- |
| 1 child's 1 day's work = | 1 |
| 140 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (5 women + 10 children)'s day's work = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 5 | + | 10 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 |
| 70 | 140 | 14 | 14 | 7 |

https://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif 5 women and 10 children will complete the work in 7 days.

If 6 men and 8 boys can do a piece of work in 10 days while 26 men and 48 boys can do the same in 2 days, the time taken by 15 men and 20 boys in doing the same type of work will be:

4 days

5 days

6 days

7 days

**Answer:** Option

**Explanation:**

Let 1 man's 1 day's work = *x* and 1 boy's 1 day's work = *y*.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Then, 6*x* + 8*y* = | 1 | and 26*x* + 48*y* = | 1 | . |
| 10 | 2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Solving these two equations, we get : *x* = | 1 | and *y* = | 1 | . |
| 100 | 200 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (15 men + 20 boy)'s 1 day's work = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 15 | + | 20 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | . |
| 100 | 200 | 4 |

https://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif 15 men and 20 boys can do the work in 4 days.

A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?

12 days

15 days

16 days

18 days

**Answer:** Option

**Explanation:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A's 2 day's work = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | x 2 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | . |
| 20 | 10 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (A + B + C)'s 1 day's work = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | + | 1 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 6 | = | 1 | . |
| 20 | 30 | 60 | 60 | 10 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Work done in 3 days = | https://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | 1 | + | 1 | https://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | = | 1 | . |
| 10 | 10 | 5 |

|  |  |  |
| --- | --- | --- |
| Now, | 1 | work is done in 3 days. |
| 5 |

https://www.indiabix.com/_files/images/aptitude/1-sym-tfr.gif Whole work will be done in (3 x 5) = 15 days.